

REMARKS-General

1. With regard to the rejection of record based on prior art, Applicant will advance arguments to illustrate the manner in which the invention defined by the newly introduced claims is patentably distinguishable from the prior art of record. Reconsideration of the present application is requested.

Response to Rejection of Claims 17-22 under 35USC103

2. The Examiner rejected claims 17-22 under 35USC103(a) as being unpatentable over Gieseke et al. (US 2003/0182909). Pursuant to 35 U.S.C. 103:

“(a) A patent may not be obtained thought the invention is **not identically** disclosed or described as set forth in **section 102 of this title**, if the **differences** between the subject matter sought to be patented and the prior art are such that the **subject matter as a whole would have been obvious** at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.”

3. In view of 35 U.S.C. 103(a), it is apparent that to be qualified as a prior art under 35USC103(a), the prior art must be cited under 35USC102(a)~(g) but the disclosure of the prior art and the invention are not identical and there are one or more differences between the subject matter sought to be patented and the prior art. In addition, such differences between the subject matter sought to be patented **as a whole** and the prior art are obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains.

4. In other words, the differences between the subject matter sought to be patent as a whole of the instant invention and Gieseke which is qualified as prior art of the instant invention under 35USC102(b) are obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains.

5. The applicant respectfully submits that the differences between the instant invention and Gieseke are not obvious under 35USC103(a), due to the following reasons.

6. Regarding the previously presented claim 17, Gieseke fails to teach a fluid filter, comprising: an outer casing; and a filter assembly which is received within the outer casing, wherein the filter assembly comprises a plurality of corrugated filtering plates, and a plurality of flat filtering plates alternated into the corrugated filtering plates to overlap with corrugated filtering plates in a "Z" shape manner so as to form a filter stack of the flat filtering plates and the corrugated filtering plates, wherein each of the corrugated filtering plates has two side plain edges and a corrugated ridge, wherein each of the corrugated filtering plates is respectively welded onto a pair of the neighboring flat filtering plates at opposed edges, such that two sides of the filter stack are enclosed with a "Z" shaped ending respectively as a fluid inlet and a fluid outlet, wherein a height of each layer of the filter stack is ranged between 2-10 mm and a crest interval of each of the corrugated filtering plates is ranged between 4-20 mm, wherein the side plain edge is positioned to be aligned with a central portion of the corrugated ridge, or respectively aligned with an upper portion and a lower portion of the corrugated ridge.

7. Gieseke merely discloses an engine air flow system comprising an engine and a filter element construction which includes a media pack and a sealing system, wherein the media pack has first and second opposite flow faces and is constructed and arranged for air to flow into the media pack through the first flow face, and for air to exit the media pack through the second flow face. The sealing system comprises a frame arrangement and a seal member. The frame arrangement including an extension projecting axially from one of the first and second flow faces, wherein the seal member is supported by the extension of the frame arrangement, and forms a radial seal between and against the extension and the air intake duct (Gieseke, claim 1). Obviously, in the instant invention, the sealing member is not a feature of the fluid filter, while it is an essential feature of the filter element construction of the engine air flow system disclosed in Gieseke.

8. The examiner is of the view that the relative dimension of the fluid filter does not produce unexpected result and therefore obvious over Gieseke. The examiner disagrees. Any person having ordinary skill in the art would have realized that the relative dimension of a fluid filter would severely affect the performance of the device in which the fluid filter is installed. The examiner views the dimension to be arbitrary and

therefore obvious. However, the recited dimension is a result of extensive experimentation and testing of the fluid filter, and it is unfair to the applicant that the examiner treats the dimension as arbitrary. If they are arbitrary, the applicant would not have included it in the previously submitted independent claim.

9. Similarly, regarding the previous submitted independent claim 19, the applicant respectfully submits that the examiner has not identified the corresponding component of Gieseke as a teaching of the various structure of the fluid filter as recited in claim 19. More specifically, Gieseke fails to teach a plurality multi-layer corrugated filtering rings; a plurality of multi-layer flat filtering rings; and a central tube, wherein an **innermost layer of the flat filtering ring is welded onto the central tube**, an outermost layer of the flat filtering ring is welded onto an inner surface of the outer casing, wherein the **multi-layer corrugated filter rings** are coaxially alternated within the flat filtering rings and formed with a zigzag manner, wherein side edges of each of the corrugated filtering rings are respectively welded onto neighboring flat filtering rings so as to form a continuous filter core with "Z" shaped side endings, wherein two sides of the "Z" shaped side endings of the filter core are **alternatively applied as fluid inlet and fluid outlet** in applications, wherein each of the corrugated filtering rings is reserved with two side plain edges and remaining portion of the corrugated filtering rings is prepared corrugated ridge, the plain edge **is sized between 3-8 mm**.

10. Another important feature which distinguishes the instant invention from the Gieseke is that the filter assembly recited in claims 17-22 does not necessarily form a cylindrical structure, whereas in Gieseke, the disclosure is to a cylindrical filter because the filter pack 50 is cylindrical.

11. In Gieseke, Paragraph 0032 reads:

"When using this type of media construction 125, the flute chambers 124 preferably form alternating peaks 126 and troughs 128. The troughs 128 and peaks 126 divide the flutes into an upper row and lower row. In the particular configuration shown in FIG. 2, the upper flutes form flute chambers 136 closed at the downstream end, while flute chambers 134 having their upstream end closed form the lower row of flutes. *The fluted chambers 134 are closed by a first end bead 138 that fills a portion of the upstream end of the flute between the fluting sheet 130 and the second facing sheet 132B. Similarly, a second end bead 140 closes the downstream end of alternating flutes 136. ...*"

In the instant invention, the two side ends of the corrugated plate are reserved for approximately 5 mm as said plain edges. There is no such disclosure in Gieseke.

12. Moreover, paragraph 0030 of Gieseke reads:

“Generally, the filter construction 100 will be a wound construction. That is, the construction 100 will typically include a layer of filter media that is turned completely or repeatedly about a center point. Typically, the wound construction will be a coil, in that a layer of filter media will be rolled a series of turns around a center point. In arrangements where a wound, coiled construction is used, the filter construction 100 will be a roll of filter media, typically permeable fluted filter media.”

13. Gieseke is clear that the filter construction of that invention forms a wound construction. In the instant invention, the filter construction does not necessarily form a wound structure. Rather, the instant invention merely requires a plurality of corrugated filtering plates, in which the flat filtering plates are alternated into the corrugated filtering plates to overlap with corrugated filtering plates in a “Z” shape manner so as to form a **filter stack** of the flat filtering plates and the corrugated filtering plates.

14. From the forgoing reasons, the applicant respectfully submits that the examiner errs in applying the rejection under 35USC103(a) by not specifically ascertaining the proper scope of the claims of the instant invention and the newly cited reference. The rejections based on 35USC103(a), therefore, should be withdrawn.

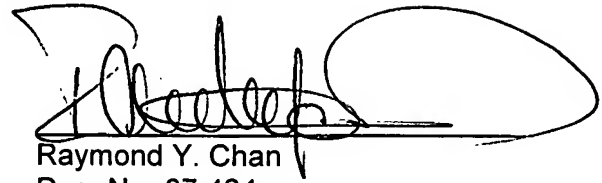
The Cited but Non-Applied References

15. The cited but not relied upon references have been studied and are greatly appreciated, but are deemed to be less relevant than the relied upon references.

16. In view of the above, it is submitted that the claims are in condition for allowance. Reconsideration and withdrawal of the rejection are requested. Allowance of claims 17-22 at an early date is solicited.

17. Should the examiner believe that anything further is needed in order to place the application in condition for allowance, he is requested to contact the undersigned at the telephone number listed below.

Respectfully submitted,



Raymond Y. Chan
Reg. Nr.: 37,484
108 N. Ynez Ave.
Suite 128
Monterey Park, CA 91754
Tel.: 1-626-571-9812
Fax.: 1-626-571-9813

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service with proper postage as first class mail in an envelope addressed to: "Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450" or being facsimile transmitted to the USPTO on the date shown below.

Signature: 
Name in print: Raymond Y. Chan

Date: 11 / 13 / 2009